AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of the claims in the application.

Listing of Claims:

1.   (Currently amended) A method comprising:

generating a spread information signal,

generating a despreading signal,

diversity-encoding at least one of the spread information signal and the despreading signal, and

transmitting diversity-encoded spread-spectrum signals by coupling the spread information signal and the despreading signal into a wireless communication channel, wherein the despreading signal is transmitted distinctly from the spread information signal.

2.   (Previously presented) The method of claim 1 wherein the despreading signal comprises a noise signal.

3.   (Currently amended) The method of claim 1, further comprising wherein the step of generating a spread information signal further comprises duplicating the spread information signal.

4.   (Cancelled)

5.   (Previously presented) The method of claim 1 wherein diversity encoded spread-spectrum signals recited in claim 1 wherein diversity-encoding includes at least one item of a set comprising providing a time offset, polarizing, applying a predetermined directionality, transmitting from a plurality of spatially separated transmitters, modulating with a predetermined carrier frequency, combining with

a carrier having a predetermined mode, and transmitting signal in at least one predetermined subspace channel.

6.   (Currently amended) The method of claim 1, further comprising a step of modulating the spread information signal [[and]] or the despreading signal onto a carrier signal.

7.   (Cancelled)

8.   (Currently amended) A method comprising:
         generating an information-bearing wideband signal,
         generating a decoding signal,
         diversity-encoding at least one of the information-bearing wideband signal and the decoding signal, and
         transmitting diversity-encoded spread-spectrum signals by coupling the information-bearing wideband signal and the decoding signal into a wireless communication channel, wherein the decoding signal is transmitted distinctly from the information-bearing wideband signal.

9.   (Previously presented) The method of claim 8 wherein the information-bearing wideband signal includes a noise signal.

10.   (Cancelled)

11.   (Previously presented) The method of claim 8 wherein the step of diversity-encoding includes at least one item of a set including providing a time offset, polarizing, applying a predetermined directionality, transmitting from a plurality of spatially separated transmitters, modulating with a predetermined carrier frequency, combining with a carrier having a predetermined mode, and transmitting the signals in at least one predetermined subspace channel.

12.   (Currently amended) The method of claim 8, further comprising a step of modulating the information-bearing wideband signal [[and]] or the decoding signal onto a carrier signal.

13-15. (Cancelled)

16.   (Currently amended) A spread-spectrum transmitter comprising:

a wideband-signal generator to generate ~~configured for generating~~ a plurality of wideband signals, at least one of the plurality of wideband signals being a despreading signal,

a modulator coupled to the wideband signal generator to modulate ~~and configured for modulating~~ at least one information signal onto at least one of the plurality of wideband signals to generate ~~for generating~~ a spread information signal,

a diversity processor to adjust ~~configured for adjusting~~ at least one diversity parameter of at least one of the spread information signal and the despreading signal, and

a transmitter to transmit ~~configured for transmitting~~ diversity-encoded spread-spectrum signals by coupling the spread information signal and the despreading signal into a wireless communication channel, wherein the despreading signal is to be transmitted distinctly from the spread information signal.

17.   (Currently amended) A spread-spectrum transmitter comprising:

a wideband-signal generator to generate ~~configured for generating~~ a plurality of wideband signals, at least one of the plurality of wideband signals being a decoding signal,

a modulator coupled to the wideband signal generator to modulate ~~configured for modulating~~ information onto at least one of the plurality of wideband signals to generate ~~for generating~~ an information-bearing wideband signal,

a diversity processor <u>to adjust</u> ~~configured for adjusting~~ at least one diversity parameter of at least one of the information-bearing wideband signal and the decoding signal, and

a transmitter <u>to transmit</u> ~~configured for transmitting~~ diversity-encoded spread-spectrum signals by coupling the spread information-bearing wideband signal and the decoding signal into a wireless communication channel<u>, wherein the decoding signal is to be transmitted distinctly from the information-bearing wideband signal</u>.

18.   (Cancelled).

19.   (Cancelled).